

REMARKS

In accordance with the foregoing, the specification and claim 14 and 18 have been amended, claim 20 has been canceled, and new claim 21 has been added. Claims 1-19 and 21 are pending, with claims 1, 8, and 14 being independent. Claims 14-19 are under consideration as being directed to elected Invention III, and new claim 21 is directed to elected Invention III. Claims 1-7 are withdrawn from consideration as being directed to non-elected Invention I, and claims 8-14 are withdrawn from consideration as being directed to non-elected Invention II. No new matter is presented in this Amendment.

Request That Amendment After Final Rejection of September 6, 2006, Not Be Entered

As indicated on page 1 of this Amendment, pursuant to MPEP 706.07(h)(III)(D) (see MPEP page 700-98), please do not enter the Amendment After Final Rejection of September 6, 2006. The amendments to the claims in this Amendment have been made relative to the claims in the Amendment of April 11, 2006.

Request for Consideration of Information Disclosure Statement

An Information Disclosure Statement was filed on July 26, 2006, and it is respectfully requested that the Information Disclosure Statement be considered. This same request was made on page 5 of the Amendment After Final Rejection of September 6, 2006. Item 12 of the Advisory Action of September 19, 2006, states as follows:

Note the attached Information Disclosure Statement(s).
(PTO/SB/08) Paper No(s). 7/26/2006

However, a copy of the form PTO-1449 from the Information Disclosure Statement of July 26, 2006, initialed by the Examiner to indicate that the cited references have been considered was not attached to the Advisory Action of September 19, 2006, and does not appear in the image file wrapper of the application. Accordingly, it is respectfully requested that the Examiner provide such an initialed copy of the form PTO-1449 with the next Office Action.

Elections/Restrictions

In the Office Action of January 11, 2006, the previous Examiner set forth a reformulated restriction requirement in which the Examiner took the position that Inventions I and II are related as process of making and product made, and are distinct inventions pursuant to MPEP 806.05(f) because "the product as claimed can be made by another and materially different method such as etching a metal sheet to form the mask."

However, the product (Invention I) as claimed in claim 3 is a deposition mask frame assembly comprising a mask that is formed by electro-forming. Thus, if the mask were instead made by "etching a metal sheet" as proposed by the Examiner, the resulting product would be a deposition mask frame assembly comprising a mask that is formed by etching, and thus would not be the product as claimed as required by MPEP 806.05(f).

In response to similar arguments presented in the Amendment After Final Rejection of September 6, 2006, the Examiner states as follows in pertinent part in the Advisory Action of September 19, 2006:

The Applicant argued that the product of claim 3 comprises a mask that is "formed by electro-forming" and that if the mask were instead made by "etching a metal sheet" as proposed by the previous Examiner, the resulting product would no longer be the product as claimed. The Applicant, therefore, agrees that inventions I and II are distinct because the product as claimed can be made by another and materially different process.

However, the applicant does not agree that "inventions I and II are distinct because the product as claimed can be made by another and materially different process" as alleged by the Examiner. The Examiner has apparently missed the point of the applicant's argument, which is that MPEP 806.05(f) requires the Examiner to identify another and materially different process of making the product as claimed. The product as claimed in claim 3 is a deposition mask frame assembly comprising a mask that is formed by electro-forming. However, it is submitted that it is not possible to make such a product, i.e., a deposition mask frame assembly comprising a mask that is formed by electro-forming, by "etching a metal sheet to form the mask" as proposed by the previous Examiner.

For at least the foregoing reasons, it is submitted that the requirement for restriction between Inventions I and II is improper pursuant to MPEP 806.05(f), and it is respectfully requested that this restriction requirement be withdrawn.

Claim Objections

Claim 20 was objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. This objection has been rendered moot by the cancellation of claim 20.

Claim Rejections Under 35 USC 103

Rejection 1

Claims 14-17 and 20 were rejected under 35 USC 103(a) as being unpatentable over Utsugi et al. (Utsugi) (U.S. Patent Application Publication No. 2002/0150674) in view of Ito et al. (Ito) (U.S. Patent No. 5,652,067) and Martin (U.S. Patent No. 4,676,193). The rejection of claim 20 has been rendered moot by the cancellation of claim 20. The rejection of claims 14-17 is respectfully traversed.

Claim 14

It is submitted that Utsugi, Ito, and Martin do not disclose or suggest the features "wherein all surfaces of the frame facing the one surface of the mask lie in a same first plane" and "wherein all surfaces of the cover mask facing the opposite surface of the mask lie in a same second plane" now recited in independent claim 14.

The Examiner considers the metal foil 40' in FIG. 7 of Martin to be a "mask" as recited in claim 14, considers the dimensionally stabilized mask supporting frame 34 in FIG. 7 of Martin to be "a frame supporting one surface of the mask so that the mask is tensed" as recited in claim 14, and considers the outer support flange 90 in FIG. 7 of Martin to be "a cover mask supporting an opposite surface of the mask" as recited in claim 14. However, Martin's outer support flange 90 is not in fact a separate element, but is an integral part of the clamping member 88 which includes the outer support flange 90 and the raised boss member 98 as shown in FIG. 7 of

Martin and described in column 10, lines 40-41 and 47-49, of Martin. Accordingly, it is submitted that the clamping member 88, not the outer support flange 90, must be considered to correspond to a "cover mask" as recited in claim 14.

However, Martin's dimensionally stabilized mask supporting frame 34 does not have the feature "wherein all surfaces of the frame facing the one surface of the mask lie in a same first plane" now recited in independent claim 14 because the surface of the flange 36 facing one surface of the metal foil 40' and the surface of the raised ridge 38 facing the one surface of the metal foil 40' lie in two different planes.

Furthermore, Martin's clamping member 88 does not have the feature "wherein all surfaces of the cover mask facing the opposite surface of the mask lie in a same second plane" now recited in claim 14 because the surface of the outer support flange 90 facing an opposite surface of the metal foil 40' and the surface of the raised boss member 98 facing the opposite surface of metal foil 40' lie in two different planes.

Claim 15

It is submitted that Utsugi, Ito, and Martin do not disclose or suggest the feature "wherein the mask is formed of nickel or an alloy of nickel and cobalt" recited in dependent claim 15. Rather, paragraph [0042] of Utsugi referred to by the Examiner states that "[t]he patterning mask may contain a magnetic element such as nickel, cobalt and iron when the patterning mask is attracted by the magnet, and the nickel-plated patterning mask may be effectively used." Also, paragraph [0049] of Utsugi states that "[a] patterning mask . . . was made of copper having a nickel-plated surface" and paragraphs [0058], [0073], and [0084] of Utsugi state that "[t]he patterning mask . . . was also prepared by etching a copper plate the surface of which was nickel-plated." It is not seen how any of these masks disclosed by Utsugi can be considered to be "formed of nickel or an alloy of nickel and cobalt" as recited in claim 15.

Claim 17

It is submitted that Utsugi, Ito, and Martin do not disclose or suggest the feature of dependent claim 17 "wherein the mask, the frame, and the cover mask are joined together by welding" as alleged by the Examiner because column 10, lines 22-32, of Martin which the

Examiner considers to teach this feature of claim 17 relates to the embodiment shown in FIGS. 1-6 of Martin in which the metal foil 40' is welded to the raised ridge 38 with the metal foil 40' under tension as described in column 10, lines 27-29, of Martin. In contrast, in the alternative embodiment in FIG. 7 of Martin which includes the clamping member 88 having the outer support flange which the Examiner considers to be a "cover mask" as recited in claim 17, the clamping member 88 clamps the periphery of the metal foil 40' between the outer support flange 90 and the dimensionally stabilized mask supporting frame 34 to establish and maintain a radial tension in the metal foil 40' as described in column 10, lines 62-66, of Martin. The welding is used only in the embodiment in FIGS. 1-6 of Martin and not in the alternative embodiment in FIG. 7 of Martin as clearly described in the following passage in column 21, lines 18-30, of Martin:

The above method can utilize the step of rigidly affixing the periphery of the metal foil mask 40' to the circumferentially extending surface by the step of welding the periphery of the metal foil mask 40' to the dimensionally stabilized mask supporting frame 34. In the alternative, a method can utilize the step of rigidly affixing the periphery of the metal foil mask 40' to the circumferentially extending surface by including the step of clamping the periphery of the metal foil mask 40' by a clamping member 88 against the dimensionally stabilized mask supporting frame 34, both illustrated in FIG. 7, to maintain a radial tension in the metal foil mask 40'.

It is submitted that nothing whatsoever in Martin discloses or suggests that the metal foil ("mask") 40', the dimensionally stabilized mask supporting frame ("frame") 34, and the clamping member ("cover mask") 88 are joined together by welding in the embodiment of FIG. 7 of Martin relied on by the Examiner. Accordingly, it is submitted that Utsugi, Ito, and Martin do not disclose or suggest the feature of claim 17 "wherein the mask, the frame, and the cover mask are joined together by welding" as alleged by the Examiner.

The above arguments were also presented in the Amendment After Final Rejection of September 6, 2006. In response to these arguments, the Examiner states as follows in the Advisory Action of September 19, 2006:

The Applicant argues that Martin does not disclose or suggest that the metal foil, the support frame, and the clamping member are joined together by welding in the embodiment of Fig. 7 of Martin. However, the Applicant agrees that Martin does teach the use of welding in the embodiments in Figs. 1-6. Martin clearly

teaches that welding is a suitable method of assembling a mask. One of ordinary skill in the art would have been motivated to weld the metal foil, the support frame, and the clamping member together because Martin teaches that such method of assembly is suitable in the art.

The Examiner's attention is directed to MPEP 2143 on MPEP page 2100-126 which provides as follows (emphasis by underlining added):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. (Citation omitted.)

Here, FIGS. 1-6 of Martin disclose an embodiment in which the metal foil 40' is welded to the dimensionally stabilized mask supporting frame 34. FIG. 7 of Martin discloses a different embodiment in which the clamping member 88 clamps the metal foil 40' to the dimensionally stabilized mask supporting frame 34. Column 21, lines 18-30, of Martin which is reproduced above discloses that the different embodiment in FIG. 7 is an alternative to the embodiment in FIGS. 1-6. Thus, Martin discloses the use of welding (FIGS. 1-6), or the use of a clamping member (FIG. 7). Martin does not disclose the use of both welding and a clamping member in a single embodiment as proposed by the Examiner. Nevertheless, the Examiner has proposed welding together the metal foil 40', the dimensionally stabilized mask supporting frame 34, and the clamping member 88 in FIG. 7 of Martin since "Martin clearly teaches that welding is a suitable method of assembling a mask." However, Martin only teaches using welding instead of using the clamping member 88, rather than in addition to using the clamping member 88. That is, Martin teaches that one suitable method "of assembling a mask" is to use welding as shown in FIGS. 1-6, and that another, different suitable method of "assembling a mask" is to use the clamping member 88 as shown in FIG. 7.

In order to establish a *prima facie* case of obviousness with respect to the feature of claim 17 "wherein the mask, the frame, and the cover mask are joined together by welding," it is

submitted that the Examiner was required by MPEP 2143 to identify some teaching or suggestion in Martin or elsewhere in the prior art that would have motivated one of ordinary skill in the art to modify the embodiment in FIG. 7 of Martin by welding together the metal foil 40', the dimensionally stabilized mask supporting frame 34, and the clamping member 88 as proposed by the Examiner. However, the Examiner has not done this, and it is submitted that the only suggestion that this be done is contained in the applicant's disclosure, which the Examiner cannot rely on pursuant to MPEP 2143.

Conclusion—Rejection 1

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 14-17 (i.e., claims 14, 15, and 17 discussed above and claim 16 depending from claim 14) under 35 USC 103(a) as being unpatentable over Utsugi in view of Ito and Martin be withdrawn.

Rejection 2

Claims 18-19 were rejected under 35 USC 103(a) as being unpatentable over Utsugi in view of Ito and Martin as applied to claims 14 and 17, and further in view of Kitazume (U.S. Patent Application Publication No. 2002/0025406). This rejection is respectfully traversed.

Notwithstanding the position taken by the Examiner, it is submitted that claims 18-19, which depend from claim 17, which depends from claim 14, are patentable over Utsugi, Ito, Martin, and Kitazume for at least the same reasons discussed above that claims 14 and 17 are patentable over Utsugi, Ito, and Martin. Accordingly, it is respectfully requested that the rejection of claims 18-19 under 35 USC 103(a) as being unpatentable over Utsugi in view of Ito and Martin as applied to claims 14 and 17, and further in view of Kitazume be withdrawn.

Patentability of New Claim 21

It is submitted that Utsugi, Ito, Martin, and Kitazume do not disclose or suggest the feature "wherein the mask is tensed with a tension that varies depending on a position in the mask" recited in new dependent claim 21. Accordingly, it is submitted that new claim 21 is

patentable over Utsugi, Ito, Martin, and Kitazume, and an indication to that effect is respectfully requested.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with the filing of this paper, please charge the same to our Deposit Account No. 503333.

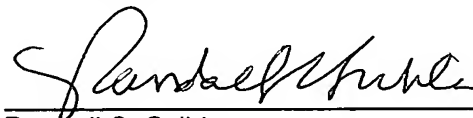
Respectfully submitted,

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